



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,438	02/15/2000	Azusa Umemoto	003-0639P	7879

7590 10/07/2004

Birch Stewart Kolasch & Birch LLP  
P O Box 747  
Falls Church, VA 22040-0747

EXAMINER

KNEPPER, DAVID D

ART UNIT PAPER NUMBER

2654

20

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/504,438

**Applicant(s)**

UMEMOTO ET AL.

**Examiner**

David D. Knepper

**Art Unit**

2654

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 23-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>18</u> . | 6) <input type="checkbox"/> Other: _____  |

1. Applicant's correspondence filed on 2 July 2004 (paper #19) has been received and considered. Claims 1-21 and 23-45 are pending.

**Claims**

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 12, 13, 16-19, 20, 21 and 23-45 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Schmandt (Audio Hallway...).

As per claim 29, an “information selector method” is taught by Schmandt’s Audio Hallway: a Virtual Acoustic Environment for Browsing:

“time-controlling a position of a plurality of sounds independently” (see figure 2, page 166 and also the time and space relationships of differences of sound in the hallway, figure 3, 4, pages 166, 167);

“selecting a sound” (see his entry is gained into the room, page 167, right column); and

“switching at least one...of sounds is associated with the type of information” (the user may travel the hallway to switch to different subjects related to sounds in different rooms, pages 166-167 and/or the user may switch among sound files inside a room, figures 5 and 6, page 168).

Claims 1, 9-13, 16, 18, 19, 27 and 28 are rejected under similar arguments as applied to claim 29. Claim 29 is considered narrower in scope than any of these other claims. The relationship to similar elements is clear. Schmandt teaches an extremely versatile interface allowing the user to select desired subjects based upon traversing the virtual hallway. The sequential playback of stored sounds and their associated subjects will vary by direction and amplitude based on the user's movement in the virtual space which not only includes the 'hallway' but also the 'rooms' that the user may enter to find more subject related materials.

Claim 2: "Controlling volume" is anticipated by the amplitude of figure 2.

Claim 3: "Arranging the position of each said sound on a circumference of substantially a circle" is anticipated by figures 5 and 6 described by Schmandt as showing sounds situated around and equidistant from the head.

Claim 4: "Commanding a position change of all of said sounds faster... returning the sound to a former position" is anticipated by his hallway metaphor which allows the user to navigate the hallway of sounds and control acceleration, page 166, bottom right.

Claim 5: "Selecting a sound of the maximum volume" is anticipated by the sounds shown in figures 2, 5 and 6.

Claim 11: "means for sequentially switching said plurality of information sources as audio information and presenting the audio information by said sound source" is clearly anticipated by Schmandt's ability to constantly switch the series of sounds presented to the user within the audio hallway as the user travels down the center of the Hallway, passing open doors from which sound emanates (see pages 166-167);

“means for selecting audio information relevant to a desired information source from the presented audio information” is clearly anticipated by Schmandt allowing the user to select the desired audio information as they traverse the hallway – when the user tilts his or her head in the direction of a doorway while passing near it, entry is gained into the room (page 167).

Claim 6, 17: “Selecting a sound of interest” is the whole point of the entire article and is shown in various levels from the hallway and inside the rooms which allow the user to narrow choices based on the user’s personal interests. The selection is performed when the user tilts his or her head in the direction of a doorway (page 167, right column, line 20). See, for example, page 166, left column, lines 31-32 where the listeners quickly grasp the general topic of the story (“narrowing down information out from categorized information”). Then the user is able to select a room (entry is gained into the room, page 167, right column, line 21) where the user may make a more detailed selection among sound files (figures 5 and 6) by similarly orienting his head towards the sound file of interest.

Claim 19: “Modifying a presentation status of said presentation means according to a predetermined condition” is anticipated by every condition and response by the user that enables the user to select where to go in the hallway and what and how to select sounds inside a room (see pages 164-168). Information where “the presentation position altered” is inherent in the manner in which he changes the virtual positioning of sounds in the hallway and the rooms.

Claims 20-21, 23-28 and 30-32: A “Predetermined condition” is defined in claim 19 (see above) as limited to a “condition” that allows “presenting simultaneously a plurality of sound information with the presentation position altered”. This corresponds to the virtual positioning

of the rooms along the hallway AND the positioning of subject related materials within each virtual room. Therefore, the claimed properties and conditions of sound are anticipated by the ability of Schmandt's device to constantly adjust the presentation status of multiple sounds based on the position of the user as tracked both physically and within the virtual space.

Claims 33-39 are rejected under similar arguments as applied to claim 17 above. The concept of "repeatedly" allowing the user to select information is taught with the manner in which he has organized the audio data for access. See, for example, his clustering on pages 163 and 164. In particular, he teaches a structure of files which can be logically grouped into a cluster, to be represented as a single entity at the top level of browsing. Once the user has selected a cluster, the individual files which make up that cluster can be scanned (page 164, right column, 3<sup>rd</sup> paragraph). The "means" for selection is the orientation of the user's head as noted above which may be repeated to select different information.

Claims 40-45 are rejected under similar arguments as applied to claims 1, 11 and 27 above.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 8, 14 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Schmandt in view of Evans (Mapping an Auditory Space on a Graphical User Interface).

Claims 7 and 8: It is noted that Schmandt does not explicitly teach “displaying an image”. However, Evans teaches that it is obvious to map auditory space onto a GUI (see abstract). Schmandt shows figures 3-6 that show a pictorial depiction of how the audio is mapped out to sound to the user. It is obvious to utilize Evan’s mapping with a system such as Schmandt’s because Evans teaches that it is particularly helpful for the user to provide auditory cues integrated with the complex visual stimuli of modern graphical user interfaces (GUI) (page 807) to better emulated the user’s experience of the physical world (see page 808).

Claims 14, 15: The correlation between audio and visual (noted with regard to claims 7-8 above) is considered narrower in scope that the claimed “information other than audio”. “Sequentially switches and presents” such information is considered obvious because the user is able to select more than one topic (Schmandt) in sequence and mapping a relationship between audio and visual data, the sequence of selection would obviously be true for all data so mapped.

6. Claims 7, 8 14 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Schmandt in view of Goose (A 3D Audio Only Interactive Web Browser: Using Spatialization to Convey Hypermedia Document Structure).

Claims 7 and 8: It is noted that Schmandt does not explicitly teach “displaying an image”. However, Goose teaches that it is obvious to map World Wide Web data and other

HTML document structure onto an interactive audio browser (page 363). Schmandt shows figures 3-6 that show a pictorial depiction of how the audio is mapped out to sound to the user. It is obvious to utilize Goose's mapping with a system such as Schmandt's because Goose teaches that it is well known to combine audio and visual information both sighted and visually impaired users with access to the WWW (abstract and page 363). It is also noted that Goose teaches the relationship between mapping various structural elements in the HTML document to audible representations on page 367, figure 6.

Claims 14, 15: The correlation between audio and visual (noted with regard to claims 7-8 above) is considered narrower in scope that the claimed "information other than audio". "Sequentially switches and presents" such information is considered obvious because the user is able to select more than one topic (Schmandt) in sequence and mapping a relationship between audio and visual data, the sequence of selection would obviously be true for all data so mapped.

### Remarks

7. Consideration of the translated rejection from the Japanese Patent Office provides evidence that the claim terminology may be properly given broad generic interpretations.

The applicant's arguments in the Amendment of 2 July 2004 regarding Schmandt, page 166 is misplaced because Schmandt teaches on page 166, col. 1, lines 24-25: The braided audio is meant to convey the general topic of a story... and lines 31-33: listeners quickly grasp the general topic of the story. That this would be true was not obvious before we attempted it. Thus, Schmandt clearly teaches that his system is intended to associate sound with a particular topic and that testing reveals that he succeeded in doing so. The portion noted by the applicant (lines



36-37) is deliberately taken out of context as Schmandt was making reference to particular sounds such as crown noise, cheering, explosions or other sounds that would not be helpful if isolated. Clearly, Schmandt teaches against this type of sound isolation in favor of the use of one or more sounds that will be helpful, over time, to convey useful information germane to a particular topic. Therefore, the applicant's claims fails to differentiate over the prior art.

The argument on page 18 regarding the selection of sound files within a room fails to address the time relationship specified with regard to the hallway, for example, on page 167, right column where he indicates that an explanation of the hallway/door relationship resulted in significantly more satisfying listening, with less confusion as to the direction in which sounds were moving. The rejection is based on the fact that Schmandt allows the user, over time, to traverse the hallway and the user may listen to and/or select among the topics presented as the user travels the hallway.

Claim 11 was specifically addressed in the rejection above in more detail.

The applicant's arguments regarding claim 27 on page 20 of the Amendment do not correspond to the language of claim 27. Claim 27 fails to recite any particular modification that would differentiate over the modification of property status such as topic, location, orientation, duration and amplitude (including on/off) that are clearly taught by Schmandt.

Claim 17 was specifically addressed in the rejection above in more detail. Applicant's request for a non-final office action to address elements of claim 17 is misplaced since they were previously addressed. The additional details did not require any new grounds of rejection.

**Prior Art**

8. The English language abstracts submitted in an IDS dated 21 April 2004 were considered.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. **Any response to this action should be mailed to:**

Box AF  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

TC2600 Fax Center  
(703) 872-9315

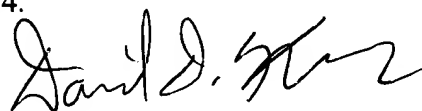
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (703) 305-9644. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (703) 305-9645.

Any inquiry of a general nature or relating to the status of this application should be directed to customer service at (703) 306-0377.

The facsimile number for TC 2600 is (703) 872-9314.

A handwritten signature in black ink, appearing to read "David D. Knepper", with a stylized flourish at the end.

David D. Knepper  
Primary Examiner  
Art Unit 2654